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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,123	10/14/2003	Jayshree Seth	58659US002	7617
32692	7590	05/31/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			COLE, ELIZABETH M	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/686,123

Applicant(s)

SETH

Examiner

Elizabeth M. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/9/05, 3/2/05, 3/1/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7-9, , 13-14, 35, 37, 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Currie et al, U.S. Patent No. 5,560,794. Currie discloses a cleaning sheet which comprises a nonwoven substrate, (designated by elements 10 and 54), with another layer, (14), embedded therein. Layer 14 corresponds to the claimed backing layer. Portions of layer 14 form projections which extend up through nonwoven substrate layer 10 but the fibers 10 are present on the top surface of the protrusions 14 and the fibers 54 are present on the bottom surface. See figure 5 as well as col. 3, lines 37-55. Each of the fibrous nonwoven layers can have a basis weight of 40-110 grams per square meter. See col. 4, lines 20-47. The protrusions may be made of polyolefins, polyester, polyamides, or polyethers. See col. 4, lines 8-19. With regard to claims 2-5, the protrusions comprise a fibrous material. With regard to claim 9, the meltblown webs are free of extra bonding material, (i.e., secondary bonding means), because meltblown webs are bonded due to the adhesion of the fibers to each other during web formation. With regard to claim 35, additional fibrous layers may be present which corresponds to the claimed additional foraminous layer. With regard to claim 42, additives such as wetting agents may be incorporated into the cleaning sheet. See col. 11, lines 35-40.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12, 15, 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Currie et al, U.S. Patent No. 5,560,794. Currie et al discloses a cleaning sheet as set forth above. Currie differs from the claimed invention because Currie et al does not disclose the height or number of the protrusions and does not disclose that the polymer material comprises fillers. With regard to the presence of fillers and other additives, it is well known and conventional to incorporate fillers and pigments in all polymeric materials. With regard to the height and number of the protrusions, since the protrusions are present to impart abrasive, cleaning properties to the nonwoven cleaning sheet, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the height and number of protrusions which produced a cleaning sheet having the desired cleaning ability.

5. Claims 1, 8-10, 36-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Schortmann et al, U.S. Patent No. 4,537,819. Schortmann et al discloses an insert which comprises a plurality of protrusions which is embedded in a nonwoven fabric. The fabric can be formed from either natural or synthetic fibers, and may comprise carded fibers which would not include additional bonding means. The fabric can have the claimed basis weight. See col. 3, line 35 – col. 4, line 48.

6. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schortmann et al, U.S. Patent No. 4,537,819 in view of Shizuno, U.S. Patent No.

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5,525,397 and Kacher et al, PG Pub 2003/0049407. Schortmann et al discloses a cleaning sheet as set forth above. Schortmann et al differs from the claimed invention because it does not disclose that the material from which the protrusions project comprises cross-laid strands. Shizuno et al teaches that a scrim material can be incorporated into a cleaning sheet which comprises hydroentangled non-woven webs in order to strengthen the web. Therefore, it would have been obvious to one of ordinary skill in the art to have incorporated a scrim material into the fabric of Schortmann et al, motivated by the expectation that this would further enhance the strength of the fabric. Schortmann et al also differs from the claimed invention because it does not disclose the particularly claimed structure, length and number of the protrusions. Kacher et al discloses a disposable cleaning sheet which comprises protrusions having the claimed shape. See figures 7-13. The protrusions can be incorporated into cleaning sheets formed from nonwoven fabrics. See paragraphs 0043-0049. The protrusions can cover from 5-110 percent of the surface area, (paragraph 0060), and can have a height of 0.5-80 mm. See paragraph 0072-0084. The protrusions can be made from the claimed material, (see paragraph 0054). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the protrusions of Kacher into the nonwoven fabric of Schortmann et al. While Kacher teaches applying the protrusions onto the surface of nonwoven substrates, Schortmann et al teaches that it is advantageous to embed the protrusion supplying material into the nonwoven fabric so that the more abrasive aspects of the protrusions are present on the surface but at the same time the softness and absorbency of the nonwoven fabric also present. See

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col. 3, lines 15-34. Therefore, one of ordinary skill in the art would have been motivated to embed the protrusion supplying material of Kacher into the nonwoven fabric of Schortmann by the teaching of Schortmann that this configuration provides the best cleaning absorbing material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (703) 872-9306.



Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

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